

OCT 7 - 2004

Attachment 2: 510k Summary-Optos Panoramic 200A

K042001

**Name of Device** Panoramic 200A Angiograph Ophthalmoscope

**Common or Usual Name** Scanning laser ophthalmoscope

**Classification Name** Ophthalmoscope, AC powered  
(per 21 C.F.R. 866.1570)

**Product Code** HLI

**Submitter** Optos plc,  
Queensferry House,  
Carnegie Business Campus  
Dunfermline,  
Fife,  
KY11 8GR  
United Kingdom  
Phone: 011 44 1383 843300  
Facsimile: 011 44 1383 843333

**Contact Person:** Robert Tweedlie Ph.D.

**Date Prepared** 15<sup>th</sup> July, 2004

**Predicate Devices**

Trade Name	Manufacturer	510(k)
Panoramic 200	Optos	K983999
Heidelberg Retina Angiography 2	Heidelberg Engineering	K971671
Scanning Laser Ophthalmoscope(SLO)	Rodenstock	K882517
Scanning Laser Ophthalmoscope(SLO)	Rodenstock	K871268

**Intended Uses**

Optos plc's ("Optos") Panoramic 200A, Panoramic 200, Heidelberg Retina Angiography 2 and G.Rodenstock Instruments GmbH Scanning Laser Ophthalmoscopes ("the Rodenstock SLOs") is intended to examine the retina. The Panoramic 200A, Panoramic 200 and the Rodenstock SLOs are indicated for diagnosing and monitoring disease and disorders that manifest themselves in the retina of the eye. Additionally, the Panoramic 200A, Heidelberg Retina 2 and Rodenstock SLOs are indicated for imaging the fluoresced ocular vasculature. Thus, the Panoramic 200A Ophthalmoscope has the same intended use and same indications as these predicate devices.

## Principles of Operation and Technological Characteristics

The Optos Panoramic 200A and the predicate devices are Scanning Laser Ophthalmoscopes (SLO) that work by the same method. They use a laser or lasers as a light source that is scanned by a deflection system in two axes across the retina of the eye to generate an image. The returned light then travels back along the same path to a light detector that converts the light to an electrical signal. This electrical signal is digitised and used to build up an electronic picture in a personal computer and displayed either on a cathode ray tube or a liquid crystal display.

The technological differences between the Panoramic 200A Ophthalmoscope and its predicate devices in an angiographic mode are the lack of an infrared laser, different display format, wider imaging angle and associated resolution. However, these differences do not raise any new questions of safety or effectiveness.

### Performance Standards

The Optos Panoramic 200A Ophthalmoscope is a Class 1 laser device. This device complies with 21 C.F.R., Parts 1010 and 1040.

The Optos Panoramic 200A Ophthalmoscope complies with the following standards:

**IEC 60601-1 Second Edition 1988/A1: 1991  
& A2:1995**

**Medical electrical equipment. General Requirements for safety.**

**EN 60601-1:1990/A1:1993, A11:1993, A12:1993  
& A2:1995, A13:1996**

**Medical electrical equipment. General requirements for safety.**

**EN 60601-1-1:2001**

**Medical electrical equipment. General Requirements for safety. Collateral Standard. Safety requirements for Medical electrical systems.**

**EN 60601-1-2:2001**

**Medical electrical equipment. General Requirements for safety. Collateral Standard. Electromagnetic compatibility Requirements and tests;**

EN 60601-1-4:1996

Medical electrical equipment. General Requirements for safety. Collateral Standard. General requirements for Programmable electrical medical Systems;

UL60601-1 First Edition:2003

Medical electrical equipment. General requirements for safety;

CAN/CSA-C22.2 No.601.1-M90 including S1-94

Medical electrical equipment. General requirements for safety;

#### Conclusion

The Panoramic 200A has the same intended use, the same indications and very similar principles of operation and technological characteristics as the predicate devices. The minor differences between the Panoramic 200A and the predicate devices do not raise any new questions of safety and effectiveness. Thus, the Optos Panoramic 200A Ophthalmoscope is substantially equivalent to legally marketed Scanning Laser Ophthalmoscopes (SLO).



Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

OCT 7 - 2004

Optos PLC  
c/o Hogan and Hartson, LLP  
Attn: Mr. Howard M. Holstein  
555 Thirteenth Street, N.W.  
Columbia Square  
Washington, D.C. 20004

Re: K042001  
Trade/Device Name: Optos Panoramic 200A Scanning Laser Ophthalmoscope  
Regulation Number: 21 CFR 886.1570  
Regulation: Ophthalmoscope, AC powered  
Regulatory Class: II  
Product Code: HLI  
Dated: July 26, 2004  
Received: July 26, 2004

Dear Mr. Holstein:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at (301) 594-4613. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address <http://www.fda.gov/cdrh/dsma/dsmamain.html>

Sincerely yours,

A handwritten signature in cursive script that reads "A. Ralph Rosenthal".

A. Ralph Rosenthal, M.D.

Director

Division of Ophthalmic and Ear,

Nose and Throat Devices

Office of Device Evaluation

Center for Devices and

Radiological Health

Enclosure

## Statement for Indication for Use

510(k) Number (if known): K042001

Device Name: Optos Panoramic 200A Scanning Laser Ophthalmoscope

Indications for Use:

This device is indicated for use as a wide field and retinal fluorescence imaging ophthalmoscope to aid in the diagnosis and monitoring of diseases or disorders that manifest themselves in the retina.

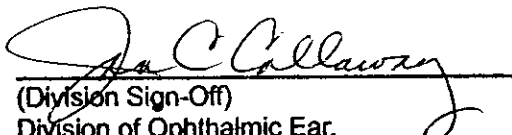
Prescription Use ☒  
(Per 21 C.F.R. 801.109)

AND/OR

Over-The-Counter Use ☐

(PLEASE DO NOT WRITE BELOW THIS LINE -- CONTINUE ON ANOTHER PAGE IF  
NEEDED)

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Concurrence of CDRH, Office of Device Evaluation (ODE)

  
(Division Sign-Off)  
Division of Ophthalmic Ear,  
Nose and Throat Devices

510(k) Number K042001